/220 cont./

998 Among most families the cross, an old symbol which I shall discuss later, is still clung to today.

• 415 199 In addition to calabashes the household equipment already exhibits many modern pots, plates, glasses, and tin cans.

236 198 197 A few women still know how to weave ponchos and hammocks out of cotton, the latter sometimes out of plant fibers. But here, too, manufactured goods are already being bought.

III. Art and Music.

531 532 198 The Cainás can certainly be designated as artistic Indians. In former times they burned all kinds of designs into calabashes and carved figures out of wood or modeled them out of wax. Now they neglect these occupations, for life has become harder and they must produce and sell their products in order to obtain money to cover their growing needs on the border of civilization. They like to draw, carve, and model, however, if they are paid for it. I had many of them draw and am presenting the best drawings on Plates II and III, while Plate I shows illustrations of wood carvings. -- In Peritiba here and the surrounding villages Claudio was foremost as an artist. The animals c) and d) on Plate I, which are supposed to represent monkeys, came from him. Since Claudio is able to write numbers and his name, he engraved the year number 1956 on the side of the monkey c). The representations of the two figures actually resemble a monkey very little: the tail is missing, and the limbs are much too short, the body too heavy. Plate II shows drawings exclusively by Claudio. The wooden figure, Fig. 1, which is about three times as large as in the photograph, also came from him. A second figure carved by Claudio six years later shows the same expression and is very similar in every respect to the first one, except that it is somewhat cruder. -- Clidaco carved the figures b), c), and e) and drew the upper figures on Plate III. Alexandre declared that he was unable to carve; the bottom row of drawings on Plate III came from him. Both Clidaco and Alexandre are completely illiterate.

(p.2)

In Schaden—SS S-4,5 (1946-1954) 1962 Gast Concord Gast
Mitte
Bandeira

IV. Carrying-baskets of the Concord women.
1. Mitú. 2. Bandeira.

V. Clearing of a Bandeira-Concord family from Devonian.

/32 cont./

27c [824] a grill and pulverized between the hands ash ashes of guajayvi, guajuvira, but only the external white ash, called hagué; furthermore, kí ti or kumbaé, "very sharp pepper" /Port. "pimenta malagueta"/, native to the region, according to the information of the Indians themselves. Old Dobrizhoffer already mentions [415] that the Caingué (probably Kayová) chewed tobacco /fumo/ that they carried with them in a little bowl suspended at the waist (1).

1. /Page p. 64 of the original source./
Apud Métraux, 1930a, p. 117.

They also told me about a chewing tobacco /fumo-de-macaco/ called mayahéo, formerly in use among the Kayová. One takes [824] the tender leaves of the plant, which are placed on hot ashes and then beaten with a stick of wood. The result is a mass of tobacco [178] /fumo/ and ashes, which is chewed. The facility with which one nowadays obtains a twist of tobacco /fumo/ for chewing is certainly responsible for the abandonment of mayahéo.

The use of the pipe is less generalized among the Kayová than in the other subgroups of the tribe. It is true that the latter [439] in large part have abandoned the making of pipes, but in any case they buy the little pipes that are offered in the caboclo stores. One [192] of the more interesting pieces of the material culture of the Mbyá is the pipe, pétÿngué, of typical form, made of clay or of pine knots. They smoke it in "communist" manner, two, three, or more persons: after a few puffs, the smoker passes it into the hands of his companion. Nowadays many Mbyá, to be sure, manufacture cigarettes (pétÿ ñeenimbiré) with straw, which they prefer to those with paper. Among the Nandéva of the coast I met an old woman who made clay pipes, many of them with a bird-shaped bowl.

27c [824] [192] Among the Mbyá almost everybody smokes, including very young children: once in a while the children will refuse a cigarette, fearing that they will become dizzy: "tondjuhá." Among the Nandéva it is principally the men who smoke, but also a good part of the women.

2: Schaden--76 E-4, 5 (1948-1954) 1962 S344 Guarani S344
Kayová
Ñandéva

342

VIII. Kayová-Guaraní guest-house of traditional type, village of Panambi, Mato Grosso.

342
415

IX. Ñandéva-Guaraní house in Jacareí, Mato Grosso, with dance area and chicha tub.

2: Schaden--99 E-4,5 (1948-1954) 1962 Sh44 Guarani Sh44

59 of the new family, which after a few months manages to build
606 its own house, at first in the immediate vicinity of the dwelling of the father-in-law, and then, as I was told, "farther and farther away" ...

462 In the majority of the present-day villages the division of labor between the spouses is not very rigorous. In any case, everything pertaining to hunting is a matter for the husband, while the tillage is divided into masculine and feminine activities. The felling of the trees, the clearing, the preparation of the ground in general falls to the man; planting, to the woman. Con-
[184] cerning this latter point, I noted, however, that among the
[179] Nandéva of Dourados it is not the woman who plants; they have already adopted, as they say, the "system of the civilized." The harvesting is in part done together, in part a task of the women; sometimes the man breaks off the maize, while the woman carries it home. Apart from exceptions -- on rainy days, for example -- it is the women who go to root up mandioca.
462 The carrying basket -- adjó (Ñandéva), adjaká (Mbüá), and
• 415 mynahú (Kayová) (6) --

462 415 101 114

6. /From p. 84 of the original source./ Müller (1934-1935) distinguishes three Guaraní "tribes" in the forest region of eastern Paraguay: Mbyá, Chiripá, and Paí. He states (pp. 180-181) that through the shape of the baskets ergology offers an infallible criterion for distinguishing the three "cultures," one being that of the "adjaká," another that of the "adjó," and, finally, the third one that of the "pynacá." From an analysis of Müller's work it is seen that the "Mbyá" are the same as the ones existing in Brazil (Mbüá), while the "Paí" would be Kayová -- who, especially in the mythology, know the word pái with the meaning of companion -- and the "Chiripá" probably Ñandéva. This would

2: Schaden--100 E-4,5 (1946-1954) 1962 SM4 Guarani SM4

462
415
[107]

/83 cont./

also agree with the shape and the denomination of the carrying baskets in the three subcultures represented in Brazil, with the remark, however, that I never heard the Kayová say pynakú, but always mynakú.

could even be given as a symbol of feminine economic activities. Repeating what has already been ascertained with reference to the women of other tribes, it might be said that the Guaraní woman without her carrying basket is comparable to a soldier without a
462 gun. And it is an important point concerning her dependence in relation to her husband, since the technique of plaiting is part of the masculine culture. Only among the Ñandéva of the Paulista
[184] coast have I observed women making sieves or plaiting the facing (mbopará) of bows intended for sale. The technique of making these facings, by the way, was learned by them through living with the Mbüá. It should be noted that the industrial production
[178] for commerce proceeds in a direction opposite to the original sexual division of labor; among the Mbüá, too, I saw women making embira strings for the bows intended for commerce.

[184] Gathering firewood is a masculine task among the Kayová and Ñandéva, a feminine one among the Mbüá. The preparation of food falls to the woman, except in case of illness or some other impediment. In any case, however, the men know perfectly well, up to the most insignificant details, the secrets of the culinary art.

The traditional tasks of spinning and weaving, insofar as they
[197] have been preserved, are an appanage of the woman. Among the Kayová of the new generation I met women who were somewhat ashamed because they had not yet mastered these techniques. My friend Marçal de Souza, married to a civilized woman, told me that he would promise that his daughters would learn how to make txumbé and other handicrafts. The majority of the women of all the villages also know the art of sewing, and it is rare to see a man handle a needle in order to mend his trousers. /84/ Anything involving personal relations with strangers preferably falls to the male element. The purchases in the nearby village, for example, are made by the men, though sometimes accompanied by the women. /The notes for Ch. V occupy the rest of p. 84 in the original source./

3:Watson E-4,5 (1943) 1952 SM4 Guarani SM4

doubtful. Apparently sleeping was not entirely restricted to the hammock among the Cayuá, however, as Rengger mentions children reclining on skins of animals.[a] There is some indication that hammocks were reserved for adults. Hammocks were hung all about the interior of the *tapúi*, in each family section, and could be unslung for extra space during the day.

Every aboriginal *tapúi* had its mortar, and probably most had several of these. Mortars were made of hard wood which had been burned and hacked until there was a depression in the end or in the side: both "vertical" and "horizontal" mortars may have been made, although the "vertical" was much more common.[b] Pestles were either simple, smoothed pieces of wood with rounded ends, or might be tapered in the middle to make a better grip and to lighten them. Sometimes the two pounding ends were different as well, one being regularly blunted while the other was flattened laterally, giving the pestle somewhat the appearance of a narrow, thick spatula.

Long troughs for *cāwī'* beer, cut out of logs in much the same manner as a dugout canoe, were usually to be found by each *tapúi*. Some of the present-day troughs are of great size—as much as thirty feet long and a yard or more wide inside—and it may be that formerly, when every house had its own trough (and without metal tools), they were never as large. The smaller troughs are still to be seen and are usually less than half the size of the largest observed.

Pottery vessels were used which were made by the Cayuá women themselves. The use of these vessels, however, may have been somewhat limited in that gourds could be used for many of the same purposes except direct cooking on the fire. The metal vessels of the European have practically replaced aboriginal pottery, although the use of the gourd still widely persists. Gourds were used to carry water, generally in this case being provided with a coarse net and carrying loop of vegetable fiber. Larger gourds (up to 2 feet in diameter) were used for storing *cāwī'*, tiny ones for keeping paint pigments and herbal remedies, and open half-gourds were used for drinking and eating dippers. The shell of the armadillo made a good container for corn and similar substances. Small gourds were sometimes ingeniously cut so that the top could be used as a close-fitting cover, held tight by cords passing through holes in both parts. Pyrographic decoration of gourds is suggested aboriginally.

Admirably woven, round, flat, sieves of hard, rattan-like material were used for straining *cāwī'* beer and in pounding corn, for separating out coarse grains which needed more grinding. Other basket work seems to have been limited to the woman's back basket, *mbunakā'* (or *adjaká*), worn across the

[a] Rengger, 1835, p. 117.

[b] It is possible, however, that the horizontal type of mortar is modern. It is now much used to crush the juice from sugar cane, an operation for which the upright type with smaller basin is ill suited. Sugar cane is, of course, post-contact.

3:Watson E-4,5 (1943) 1952 SM4 Guarani SM4

back of the shoulders and supported by a tumpline, and the crude open-work "baskets," often hastily thrown together on the spot, for carrying by hand fruits, manioc, corn and the like. Basket weaving was men's work.

The men did not carry burdens to any great extent. The carrying they did was different from that of the women and was probably confined to small woven bags, made of *caraguatá*, which hung from one shoulder. These usually contained only personal objects and were reputedly called *mbocsi* (the word for "two"?).

There seems to be some confusion as to the use made by the Cayuá of canoes. Métraux says that the Cainguá (apparently those of Paraguay) and the Chiriguano

> are the only tribes of this family that possess no boats, which is to be explained by the absence of any easily navigable course of water in the region where they presently live. Their ancestors, the Guarani, were excellent paddlers and the Cainguá of Brazil [elsewhere specifically referred to as "*Cayuá ou Cainguá du Brésil*" (p. 61)], who live in a country with plenty of waterways, have inherited their qualities.[83]

However, few or no Cayuá of Brazil now use canoes extensively. It can only be said, therefore, that canoes were probably formerly widespread and important and that their use has diminished considerably according to the particular habitat of the group in question.

Today there are differences of clothing among the Cayuá of Paraguay, with different groups being called respectively "Baticolas," "Pañ," or "Chiripá"—allegedly according to their characteristic costume. It may have been that formerly, too, there were differences among groups. At any rate, male loincloths of native cotton are indicated for the aboriginal culture, and there is a suggestion that these cloths were supported by cords twisted of human hair. To the women is ascribed the use of the familiar *chiripá* of the region, a sort of short kilt or apron, also of native cotton cloth. Ambrosetti, however, tells us that in one modern Guarani-speaking group, the Chiripá, both men and women used this article of clothing from which their name is taken.[84] Small caps of cotton are mentioned,[85] and the use of belts of human hair, as well as wristlets and "leglets" of hair, is indicated for the men. The use of leg windings, at least, is supposed to have been related to the idea of staving off fatigue on the march, while the bracelets—the left one—are said to have served as protection against the slap of the bowstring. Some Cayuá used leather windings for this latter purpose.[86]

Rengger mentions "mantles" of cotton,[87] but no feather capes are suggested for the Cayuá such as are known to have been used by some of the coastal Tupi tribes. Some featherwork, however, was known among the

[83] Métraux, 1928, p. 207. [84] Ambrosetti, 1894, p. 704. [85] *Ibid.*, p. 705.
[86] *Ibid.* [87] Rengger, 1835, p. 121, *et passim*.

3:Watson E-4,5 (1943) 1952 SM4 Guarani SM4

ner which could hardly have been possible without the machete. *Taquara* "boards" have no convenient application in connection with the older style of house, the *tapúi*. But they are more often than not used in building the smaller, individual family houses of the present day, which are peculiarly adapted to their use (see below, pp. 84–85).

The use of canoes by the aboriginal Cayuá has been mentioned, although it is not borne out by their employment or manufacture at the present. If canoes were formerly used, the lack of them now would seem in some way related to acculturation and hence deserves mention here. Without canoes, the Cayuá do not travel extensively by families or groups. What travelling they do is done on foot—or individually by horse, in the case of a very few who own them. Although they may have been only slightly less sedentary aboriginally than now, it is probable that with canoes the Cayuá were formerly able to range much farther afield (or astream), using their villages as bases.

The ceramic art barely survives at Taquapiri. None of the younger women is learning to be a potter, and there are only four remaining potters among the oldest women. Of the four only two have recently made or intend to make any pottery in the near future, and even with them its manufacture is very irregular. Many of the girls and young women have never even seen pottery being made nor apparently expect to. The iron kettle and the tin can have almost entirely usurped the former place of pottery, and by far a majority of the households possess no pots of clay whatever. The woman's pipe, formerly of either wood or clay, tends to be of wood alone today. The conventional water gourd, and gourds and armadillo shells for other types of containers, however, have not declined in use. As a matter of fact, the gourd as a water vessel is quite practical and is to be found in not a few of the Neo-Brazilian households of the region. This continued use of gourds may derive some indirect advantage from the fact that gourds are also raised for use as *mbarahá*, ceremonial rattles, which are far from waning in importance.

Men's carrying bags or containers for personal objects, *mbokói* (?), differ from the aboriginal ones; nor are they now usually objects of the native weaver's art as formerly. Men's double carrying bags of store cloth, something like small saddle bags, are slung over the shoulder, with one pocket hanging in front and one at the back. They constitute an exclusively male method of carrying, but are only occasionally worn, however. For small personal objects the only container observed was a little leather pouch, probably Cayuá-made, fastened at the belt, and used by boys and men.

Clothing, except for men's belts, is now entirely of store cloth. It is home sewn (with trade needles and thread), and the styles are typically Cayuá. Presumably they reflect the style of army uniforms at one time issued to the Indians. Thus men's trousers are apparently modelled on original military or riding breeches, since forgotten, which fit closely at the knee. Even in the

3:Watson E-4,5 (1943) 1952 SM4 Guarani SM4

America, is still practiced by the women and children. No use of the dark *genipá*, a plant substance also widely used for painting, was observed by the writer, but it may be that this color has a special and extraordinary purpose. No extensive feather work was in evidence, but it is clear that the bright colored feathers, especially of the toucan and parrot, are still used to make colorful little swatches and tassels to decorate wooden crosses (*kurusá* from Spanish *cruz*), *mbarahá*, and wooden whistles. Feathers may also be still used with cotton head bands, armbands, and collars for ceremonial wear; examples of such pieces were observed, though not in use. These feathered paraphernalia, however, are in no wise as spectacular as the feather work that has come to be associated with the aboriginal Tupi of the coast; in fact, they are rather plain.

Of household furnishings, hammocks, carved, small wooden benches, mortars and pestles, and large wooden troughs for *cãuĩ* are still made. The wooden benches of the Cayuá at Taquapiri are simple affairs and very plain, and no attempt was made in the benches seen to represent forms from nature. The only decoration, if any, is of simple lines and dots of red paint applied to the two flat sides of the bench. Mortars and pestles have lost none of their utility and are, in fact, universally in use by the Neo-Brazilians of the region, as well as by the Cayuá. They are employed by the Indians primarily for pounding corn, though the "horizontal" mortar is used for smashing sugar cane for its juice. The axe and the machete have so facilitated the manufacture of *cãuĩ* troughs that the largest trees in the forest can now be felled and converted into containers for making this beer. The only limitation concerning their size is that the trough must be transportable from the place where the tree grew. There is little question that the present communal *cãuĩ* trough at Taquapiri is the largest ever—at least in the minds of those who made it—and they are probably right. The number of such beer troughs is now smaller in relation to the population than formerly, but this is not directly related to any technological factor.

Basketry, men's work, does not appear to have suffered greatly compared with its aboriginal state, although here, as in so many other places, scant information is available. Firefans, women's back carrying baskets with woven tumplines, crude temporary baskets for hand carrying, and trays of many sizes for straining and winnowing are still made, much as ever. Acculturation has possibly resulted in an increase in the number of woven rattan strainers and winnowing trays manufactured. This is because the Cayuá product is now used (for the same purposes) by most of the local Neo-Brazilian settlers.

Musical instruments of the present-day Cayuá include *mbarahá* gourd rattles, *tahuapá* (stamping tubes of *taquara*), tiny musical bows, flutes and wooden whistles. It may be that the aboriginal Cayuá did not have such instruments as the musical bow, although white acculturation is not indicated as their source. No guitars or violins of any sort, home-made or bought, were seen

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*177 243 [173] are consistent to a certain degree with their contention. They say that the gods do not approve when large quantities of flint corn are planted and smaller quantities of the flour type, which is a divine gift. In spite of going this far, however, it is quite obvious that Cayuá now do sometimes plant more *tupi'* than *monoti'*, intending the greater harvest largely for sale. Cutler says, "The flour types appear to be the older form."[126] It is possible, therefore, that the Cayuá have grafted onto some aboriginal distinction between an older and supernaturally sanctioned flour corn (*monoti'*) and a more recent flint type (*tupi'*) the modern rationalization that the latter is white-introduced. The present trading association of hard corn may also have had some influence. In any event, it is clear that some few plants have been introduced to Cayuá agriculture by acculturation and that the aboriginal production ratios between one crop and another have been somewhat changed as a result of white influence.

*177 *178 224 226 Hunting and fishing have changed less than agriculture but a few acculturational features are to be noted. In fishing, white-introduced metal hooks are used for angling. Machetes are now often used when hunting with dogs; clubs have presumably given way to machetes in this and have disappeared altogether. Firearms are known, and a very few Cayuá possess them.[127] The bow and arrow is the missile weapon used by the largest number, and it does not seem to have suffered basically, either as to variety of arrow points or as to the knowledge of its use, from acculturational change.

*177 *178 222 412 • 415 Technologically, gathering has been largely unaffected and also probably has been little influenced by acculturational factors as to its importance in the total economy. In honey-gathering the machete and axe have provided some advantage over any conceivable aboriginal method. These metal implements are used to cut open the trees or stumps where the wild bees make their nests. Kerosene cans and *aguardente* (Brasilian alcoholic drink made of cane juice) bottles are now also found convenient for catching and storing the honey.

224 226 433 Although apparently little affected by acculturation as to technology, the non-agricultural forms of food production are now completely subsidiary. In some respects hunting and fishing theoretically may now even be dispensable. Practically every able-bodied Cayuá man (and woman, within the limits of her status) is an agriculturist. But many men do very little hunting or fishing. Even the motives for these lesser activities are now somewhat special and include the desire for variation of activity and for relief from the largely vege-

[126] *Ibid.*

[411] [648] [127] In 1943 only one person at Taquapiri had a firearm usable for hunting, an ancient Belgian shotgun, for which he sometimes bought powder and shot and loaded his own shells. A story was current among the Cayuá at that time that "the Government" had issued an order for all firearms to be taken from the Indians. Apparently certain local whites had "cooperated" in this, taking the arms for themselves.

3:Watson E-4,5 (1943) 1952 SM4 Guarani SM4

not yet fallen off as much as in pottery, must remain for the future to say.[150]

Craft specialization among men includes the manufacture of strainer-winnowing trays and of women's back baskets with tumplines, to cite only the more common and important ones. The making of strainer-winnowing trays is not an industry which is dying, and its practitioners are not, therefore, simply fewer and fewer. The need for this item of domestic equipment has continued among the Cayuá themselves, and its use has developed among local Neo-Brazilians, who do not manufacture their own trays. Specialization is nevertheless present, for some Cayuá in 1943 indicated that they always obtained their winnowing trays from certain others who were quite good at making them.[151]

It cannot be flatly denied, of course, since documentary evidence is lacking, that craft specialization of the present sort existed formerly. But at least one point seems to indicate the opposite: informants who were asked about whether or not they were able to make certain things usually indicated that they felt they *should* be able to make them, even in cases where they confessed they were not.

The second and more important type of specialization, which we have called work alternatives, is the result of alternative activities which did not exist aboriginally in Cayuá culture. The most important of these alternatives is that of working in *changa* (wage-work) for settlers in return for desired white goods such as cloth, salt, grease, meat, metal tools, and the like, or for money pay with which such goods can be purchased at the *bolicho* or trading post. Formerly a man worked for himself or his family—or worked jointly with other Cayuá, with the expectation of reciprocity in kind. There was no wage work or employment. Now, although practically all still work for themselves, few do so exclusively; and a very few—perhaps no more than three or four men at Taquapiri—are actually even deficient in their own home production, because they spend so much (most Cayuá do not hesitate to say "too much") time in working in *changa*. The few individuals who are thus behind in the work of their own *kokwé* are naturally those who are also most in need of having a *puhirão* joint work party to help them catch up. But by the same token, these men are often the very individuals who would be unable to give a *puhirão* (unless with the help of a relative) for lack of the necessary agricultural stores with which to make *cãuí'* for the required drinking fest. Some men work a great deal as peons, some only moderately, and a few not at all, and most informants are well aware which individuals these are.

[150] Conceivably perhaps, such a product as hammocks will continue in demand until long after the Cayuá are rather completely acculturated to their Neo-Brazilian surroundings and are de-tribalized. It might constitute an ethnic specialization.

[151] One of the most important uses of these utensils as strainers is in connection with *cãuí'* which is usually strained of all the larger lumps of corn or other substance which may occur in it as it is served.

3:Watson E-4,5 (1943) 1952 SM4 Guarani SM4

*177 439 648 [262] [291] rather than the *bolicho*—for the little meat not obtained by Cayuá themselves through hunting. Cheap felt hats are used by a number of grown men, probably a majority, and women much appreciate colorful head cloths to use as bandanas. Such "luxury" or non-essential items as shoes, usually for men but occasionally for women, are acquired by those who are able to do so and are principally brought forth for festive occasions such as night dances. (Otherwise everybody goes barefoot nearly always.) By far the most indispensable of trade goods are the metal cutting tools for agriculture, without which the present economy of the Cayuá could little more be maintained than that of the whites.

439 648 Turning to the Cayuá products which find a market with the whites of the region, we note that at the present time some Cayuá normally sell or barter small amounts of their *kokwé* production every year. Corn, principally the kind known to the Brazilians as *milho duro*, "hard corn" (Cayuá: *aBatí tupí*), is the item of largest sale. It is sometimes sold wholesale, relatively speaking, and not merely in small quantities at a time. Beans occasionally enter into Cayuá dealings with whites but not nearly so frequently as corn, nor usually on such a scale. Manioc and sweet potatoes, probably partly because they are not as easily stored in quantity, rarely are sold to whites except in small amounts for immediate consumption. These latter products do not go to the traders usually but to local settler families who live close by and who may be temporarily short as a result of a poor harvest or bad planning in their own *roças*. (Cayuá occasionally try to obtain similar products for the same reasons from local settlers.) [243] A few Cayuá now plant rice, which is not a native plant. *[177] Although there would not be sufficient rice for themselves, did they consume much, the product is sometimes traded to the Neo-Brazilians. In connection with corn, at least, a significant number of Cayuá men, perhaps roughly half the total, occasionally (that is, not every year) plant with some intention of a storeable, tradeable surplus destined to the *bolichos*. The quantity is not large in most cases, however.

648 439 352 *415 262 Besides agricultural products, only a few others enter occasionally into Cayuá-Brazilian trade and barter. These are wild honey, infrequently a hammock made of *caroguatá* cord, and woven split bamboo strainer-winnowers, which are called in Portuguese *peneiras* ("strainers"). Wild honey is gathered by the Indians primarily for their own use. In years of some surplus, or when a *patrão* or other Brazilian particularly requests honey, the Indians may trade small quantities of their take to local white settlers. Honey is locally considered to have peculiarly potent salutary properties and is hence in demand by Brazilians; it is also a great delicacy to the Indians. The hammocks, which are standard household furniture for the Cayuá, are not normally considered essential by local white settlers, but once in a while one may be in demand for resting purposes—much as we use them in the summertime.[130] Hammocks are

[130] Hammocks have a northern and equatorial rather than a southern distribution among the

3:Watson E-4,5 (1943) 1952 SM4 Guarani SM4

not often made for sale, except upon specific order of some white. It is different with winnowing trays or strainers. All Brazilian households in the neighborhood, as well as those of the indigenes, pound their corn in wooden mortars and require these trays to sift fine corn from the coarser which needs more pounding. There is usually a well understood idea of price, according to the size and workmanship of the tray. Some Cayuá men consequently make them to be offered for sale or barter either directly to the settlers, or to the *bolichos* which may keep a small stock of trays on hand. This is a fairly durable article, however, so the extent of their use does not necessarily imply a large volume of production. Specialization in the manufacture of strainers has already been mentioned.

Considered as a whole, however, the trade of Cayuá products to white settlers or to the *bolichos* is both a much smaller and less regular avenue of commercial relations with the outside than the *changa*. The Cayuá is less sure of having both saleable merchandise and buyers for it than he is of having a demand for his labor. His labor is consumed in larger quantities, usually, than his products and hence ultimately provides him a larger part of the trade goods he requires. Furthermore, not every able-bodied Cayuá can make the winnowing trays, nor can their wives all make hammocks, and some do not seem able or interested in producing any surplus of agricultural products for barter. Cayuá production for barter or sale in most cases could best be described as only haphazard or casual. All those who receive more income from trade in Cayuá products than from *changa* are either non-peons or work very little in *changa*.

Economic exchange of the Cayuá of Taquapiri, both outside the village and internally, falls under the headings of "pure barter" and "money barter."[167] Pure barter is the exchange of goods for goods without reference to a common standard of value. Money barter, hence, is the exchange of goods for goods (and presumably also services for goods) in which there is a single general and uniform measure of value, money. In their dealings with the Neo-Brazilians in trade and *changa*, the Cayuá are now acquainted with an accepted money value of many of the commodities as well as the services they exchange. A *mão* of corn (sixty-four ears) is worth so much in money; to clear a *quarta* (roughly a quarter of an *alqueire*, the latter an area of 24,200 square meters) of relatively clean second growth (*capoeira* in Portuguese) is worth so many *milréis;* a winnowing tray of good manufacture and a given size is worth so much; and so

native peoples of eastern South America, and this trait, along with a number of others, is one argument for the northern or equatorial provenience of the Guaraní-speakers of the south of Brazil and of Paraguay. In the north of Brazil, the hammock is in many places considered by Brazilians as a regular piece of sleeping equipment, and cotton hammocks are manufactured commercially for sale, especially in the states of Ceará and Rio Grande do Norte. Many hotels in the North are equipped with permanent hooks in the walls so that the guest can sling his hammock instead of using the bed, if he wishes.

[167] Gras, 1930.

3:Watson E-4,5 (1943) 1952 SM4 Guarani SM4

work to be accomplished but for the individual to do it single-handedly." The efficiency of the modern Cayuá worker in agriculture has but a single important acculturational cause (I. b.), the introduction of metal cutting implements. Particularly important are the machete, the axe, and the hoe, as has been mentioned. Compared with whatever aboriginal substitutes, there can be little question of the much greater efficiency of these metal tools.

In some sense, however, the several factors making for an increase in agriculture were generally influential here; otherwise there might have been no occasion for the individual to increase his agricultural efficiency and productivity. Obviously the relat'onship is close, and the distinction herewith of a separate item, the efficiency of the worker, must be justified by its later application in the analysis.

II. A. d. "A loss or diminution of certain native industries." The loss of native industries is a common acculturational effect, and there are a number of common causes. The primary cause in the Cayuá instance is (I. e.), the introduction of trade goods. Particularly significant have been trade goods which will substitute adequately for aboriginal handicraft products. Among these, for example, are the iron pots, bottles, and tin cans which have so successfully all but killed the native ceramic industry. Weaving has suffered much with the introduction of machine-made textiles, obtainable at the *bolichos*, and has been handicapped also by the change to clothing styles for which store cloth is more adaptable than aboriginal loomwork.

At the same time, some white trade items, such as (I. b.), metal tools, have had a contrary effect. Knives and machetes particularly have made certain crafts easier, largely crafts where cutting or splitting processes are important. This is evident in the preparation of vegetable fibers for weaving and tying, or the splitting of rattan for baskets and strainers. Such technological improvement, however, has not appreciably counteracted the decline of native industries whose products find ready trade goods substitutes.

By extension, factors which have enhanced trade relations between the Cayuá and the Neo-Brazilians have contributed to the loss or decrease of native industries. Aboriginal handicraft industries have thus been adversely affected by (I. f.) the growth of an external market for male Cayuá labor. Moreover, besides providing one more way in which the Cayuá may obtain trade goods substitutes, the *changa* (II. A. e.) in many cases occupies a great deal of work time. Frequently much of the time remaining after his own agricultural work is completed is used by the Cayuá in *changa* for local whites. The *changa* thus occupies some of the time formerly devoted to handicrafts.

The development of a small market for certain Cayuá products, including craft items, has also influenced the status of Cayuá handicrafts. The effect of a market (I. g.), however, has been to some extent ambivalent. On the one hand, the modern emphasis, in agricultural production, of a surplus which can

3:Watson E-4,5 (1943) 1952 SM4 Guarani SM4

[P.145]

Pictures by courtesy of Chicago Natural History Museum. Photography by Virginia D. Watson.

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FIG. 2. Passing up tied bundles of thatch for roof, to be held in place under horizontal bamboo stringers. House location in open field not typical of Cayuá; house was for anthropologists. House style typical of present Cayuá.

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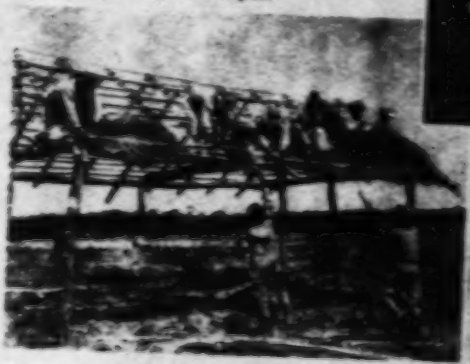

FIG. 1. Single remaining aboriginal-type *tapéi* at Taquaperi. Log tanks for *cauí* in center. Dance ground in left foreground. Corn for *cauí* cooking in iron pots on fire.

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342

FIG. 4. Men of joint work group (*mbojíha*) clearing a *kokué* for planting. They try to keep up with each other as the line of workers advances across the area to be cut over. Here second growth of about a year, small trees and brush, is being cut.

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462

FIG. 3. Modern style of Cayuá house with bamboo "board," sides, yet showing some *tapéi* influence in the back which is inclined and wholly of thatch. Squash ripening at side.

241

FIG. 5. Burning off the slash—at the height of the fire. This slash was not as dry as usual, and the result will not be a clean burn. Some trees are usually left standing.

3:Watson E-4,5 (1943) 1952 SM4 Guarani SM4

[P.148]

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291
516

FIG. 6. Recently fired Ashovi with beans coming up amongst the fallen and charred trunks.

FIG. 8. Woman planting corn with digging stick (tawabwa). Hole just made in at her feet. Four or five (but always the same number) grains are dropped in, taken only from middle of the ear. In the background, a banana grows.

482
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FIG. 9. Woman returning from clearing in forest (Ashovi) with back basket (adjiaki) loaded with produce. In her right hand she brings firewood, in her left is the worn-out machete she uses to harvest with. Mata tampoline on basket.

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415
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3:Watson E-4,5 (1943) 1952 SM4 Guarani SM4

FIG. 11. Women manufacturing [illegible] pounded corn for *chicha*. The container is still [illegible] but for comfort for the long afternoon. After thawing, each mouthful is returned to the mass.

FIG. 12. Women [illegible] [illegible] of chicha (*abatí*) for home consumption. Her son, a great delicacy and Coyuá women visitors.

FIG. 13. Customary drinking group at small [illegible] whole village] affair in connection with a [illegible]. Like most other such affairs, it was marked by high spirits and much hilarity. The drinking usually accompanies these small [illegible] the drinking [illegible] of which are held during the night hours, immediately following the work.

FIG. 14. Women's group (with several girls) at dance their hand until noon the following day for *cauxi chicha* hand until then. Note mother dancing with child on hip, a regular occurrence.

FIG. 15. Two large log tanks (also seen in Figure 2) in which *chicha* is fermented for village-wide drinking fests. Right-hand tank about 20 feet long, 3 feet outside diameter.

S:Watson E-4,5 (1943) 1982 Khi4 Guarani Khi4

[P.146]

5: Métraux E-4 [no date] 1948 3844 Guarani 3824

dogs, that is to say, supports for jars, a hypothesis completely unconfirmed. No object of that type has been found in any other Guarani region. 172

A fragment of a double vessel found at Arroyo Malo suggests a type of bowl used by the Chiriguano, though these modern vessels are obviously copied after European yerba maté containers. An effigy vessel collected at Arroyo Malo is definitely alien to Guarani culture as known through archæology. [915]* [171]

Crude stone drills, knives, hammers, and arrow-shaft polishers are listed by Mayntzhusen (1912, p. 462) among the stone objects he picked up from refuse heaps on the upper Paraná River. He also mentions quartz lip plugs. Simple unilithic stone axes without any groove have been found in Guarani sites of the upper Paraná River, on the island of Martín García, and at Arroyo Malo. Ludwig (1932, p. 140) describes two fragmentary bolas from Arroyo Malo. One is well made with a broad groove; the other is roughly shaped with a narrow groove. Outes (1917, fig. 28) figures also a grooved bola obtained at Martín García. The bola was not a Guarani weapon and its use seems to have been limited to the Guarani of the Delta.

Hammerstones, roughly shaped by abrasion and including some pitted ones, have come to light in the excavations of Arroyo Malo.

The bone artifacts which Mayntzhusen claims to have collected on ancient sites of the Paraná River include needles, weaver daggers, spatulas, fishhooks, and flutes. He also discovered perforated shell disks and some human or animal teeth which were parts of a necklace.

THE CONQUEST

No mineral wealth has ever been exploited in Paraguay, but metal objects found among the aborigines of this country in the 16th century brought about the conquest of the entire basin of the Río de la Plata. The gold and silver, which members of the Solís expedition obtained from the Guarani and other Indians of this region, had come originally from the Inca Empire. At the end of the 15th century, probably under the reign of Inca Yupanqui, bands of Guarani had crossed the Chaco to raid the peaceful Chané along the Inca frontier and even attacked tribes directly under Inca rule. Some of these Guarani bands settled in the conquered territories; others returned loaded with loot. Groups, small and large, followed the first invaders and renewed their assaults against the "people of the metal." The number of metal objects which reached Paraguay and the Río de la Plata in this manner must have been considerable for, from the beginning of the Conquest, regions which actually had nothing to entice the Spaniards were the object of their most violent covetousness. These regions became the gateway to El Dorado. 175 [915] [916]

The first positive information on the "Sierra de la Plata" or "Tierra

S: Métraux E-4 (no date) 1948 Ehnt Guarani Ehnt

They crush the pith of the palms in a mortar, strain it through a sieve, and dry it in the sun.

Meat is more often broiled on a spit than on a holocaust. Broiled fish and game are sometimes ground into powder (pirarú).

Caingangs do not use salt. Instead they season their food with the ashes of a vine (*Mucherinia unguifoliata*).

Wooden mortars are generally made of a long log hollowed at one end, but some have the grinding pit on the side. Flour is strained through beautifully plaited sieves, identical to those of Guiana, although Paraguay is the southernmost limit of their distribution. When the Caingangs have no pottery at hand, they boil food in green bamboo joints. They serve food in wooden dishes or in calabashes of various sizes and shapes.

VILLAGES AND HOUSES

A typical Guarani village consisted of four to eight large rectangular houses—some about 30 m. (100 ft.) long—grouped around a square plaza. Each house had a vaulted or gabled roof which rose from the ground and was supported on a ridge pole that rested on a row of posts dividing off the quarters of each individual family. The roof was thatched with grass, palm leaves and, in certain regions of the coast, with pieces of bark. There was a door on each side of the house. Villages were fortified with a double or triple stockade and a series of moats, bristling with half-buried spears.

The vaulted hut has survived only among the Pai'. Other Caingangs now build either a gable roof resting on the ground and thatched with taquapi grass, or palm leaves, or a gabled house with vertical wattle-and-daub walls (4 to 6 m., or 13 to 20 ft., long; 3 to 4 m., or 10 to 13 ft., wide). Grass thatching is seen to the structure with large wooden needles. Of all the modern Guarani only some Caingangs of Brazil still build in communal houses 30 years ago. These houses were 25 to 30 feet (7.5 to 15 m.) long and were grouped in villages surrounded by a thorn hedge or a palisade.

Household furniture.—The aboriginal cotton or palm-fiber hammock is now being supplanted by the platform bed or sleeping mat. Four-legged benches, which are often carved out of a single log in animal shapes, are still fairly common. Utensils and foods are stored on shelves suspended from the roof or are hung on wooden hooks or on bent deer feet.

DRESS AND ADORNMENT

Clothing.—Most of the Guarani went entirely naked, although in certain regions, it seems, women wore either a loincloth or a cotton dress (the tipoy), a sackline garment covering the body from the breasts to the knees which was eventually adopted universally through missionary influence.

St Métraux E-4 (no date) 1948 Shirt Guarani Shirt

[511] rivers. They propel these craft with poles. The Caingué of Brazil, who reside near larger streams, are good boatmen and travel a great deal in large dugouts, 8 to 12 feet (2.5 to 3.5 m.) long.

[490] Carrying devices.—Goods are carried in cylindrical or rectangular twilled baskets, reinforced with a wooden frame. *Pull* carrying baskets are relatively extensible and are made of intertwined pindo leaves, the midribs strengthening the whole structure. Carrying nets made of bark [511] strips were clearly introduced with the maté industry. The Guaraní shi [512] bag is certainly older than the net and appears to be an article that originated locally or was borrowed from tribes to the south.

[462] [514] Babies are ordinarily carried in a sling, straddling their mothers' hips, but they may be transported in baskets or in skin bags.

MANUFACTURES

[534] [510] Basketry.—The Guaraní weave temporary baskets of the pinnae of pindo palms, the midrib serving to reinforce the rim. More permanent containers are made of twilled fabrics of taquarembó strands. They are ornamented with black, geometrical motifs.

[524] Spinning and weaving.—Thread is made of cotton carded with a bow, or of *Bromelia*, nettle (*Urera grandifolia*), and palm (*Aiphanes horrida*) fibers.

[503] [531] [526] [524] [516] [517] Cotton is spun with a drop spindle and woven on a vertical loom with a circular warp. Cloth is generally white with alternate brown and black stripes, dyed with the bark of *Peltophorum dubium* and *Trichilia catigua*. The technique of darning weft strands through warp elements attached to a vertical loom, though it has been observed in modern times, was probably an early practice abandoned when true weaving became general, probably through *Arawak* influence.

[523] [175] Pottery.—Guaraní ceramics are known through archeological finds in São Paulo, Rio Grande do Sul, near Asunción in the Argentine territory of Misiones, and on the island of Martín García. The largest specimens are funeral urns, which also served as beer containers. Small dishes and bowls have a white interior slip which bears sigmoid figures, curves, triangles, mazes, and "greques." The large jars and ordinary ware have continuous rows of thumbnail or other impressions over their entire surface. The Caingué, who have practically given up pottery, make only a ware that is decadent in quality and shape. Bowls with a flaring base ("trumpeters" types) may perhaps be a survival of a pre-Columbian type.

[415] Leather work.—The Caingué carry their small possessions in skin bags.

[411] [514] Weapons.—Caingué bows are made of palm wood, guayaibí (*Patagonula americana*), or ibirá payé, ibirá pepé (*Holocalyx balansae*). They are 6 to 8 feet (2 to 2.5 m.) long, circular or oval in cross section, and entirely or partially wrapped with guembé bark (*Philodendron* sp.)

S: Métraux E-4 (no date) 1948 GM4 Guaraní GM4
[D.90-A]
199 M5. 17 41

PLATE 11.—Fingernail-marked Guaraní ware. *Top:* Sherds from Martín García, Argentina. *Center:* Vessels from Arroyo Malo, Paraná Delta. *Bottom:* Vessels from Paraguay. Funerary urn at left. (Top, after Brusseone, 1931; center, after Lothrop, 1932; bottom, courtesy Max Schmidt.)

5: Métraux E-4 (no date) 1948 SM4 Guarani SM4
Apapocuva
[P 90-B]
192
.415

a

b

c

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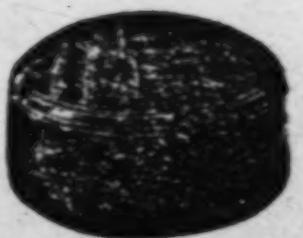
191



d

e

PLATE 12.—**Guarani and other pottery from Paraguay.** *a*, *b*, Painted; *c*, plain; *d*, *e*, probably *Mbayá-Guaná* incised ware. (Courtesy Max Schmidt.)

6c Watson E-4,5 (1943) 1945 SM4 Guarani SM4
Cayua

178
501
484

In order to explore new regions for hunting and fishing possibilities, to visit distant relatives or friends, these Indians employ waterways almost exclusively, principally when the rivers are full and the rapids and falls easier to pass. On these voyages the entire family is accomodated in the canoe..." [21]

These observations on the extent, skill, and dexterity with which the Cayuá formerly used the canoe are all the more interesting since the Cayuá of Taquapiry, as well as other Cayuá of southern Mato Grosso, apparently do little or nothing with the canoe today. The Taquapiry group lives at some distance from navigable waters, and practically all of their travelling, usually not very extensive, is done overland.[22]

By abandoning the canoe, the Cayuá gave up one of the most obvious and most useful means of moving about in a region served largely by the extensive fluvial system of the great Paraná and its tributaries. This fact, together with the facts that the Cayuá frontier had been gradually receding over a period of many years, and that the Cayuá were finally assigned to *reservas* represent major forces for Cayuá sedentarism. Whether the Cayuá gave up the canoe because they were assigned to territories where canoes would be of little utility, or whether the canoe had already been more or less abandoned in the general process of "retreat", before the assignment to *reservas*, is an interesting question though one which is somewhat peripheral to our purpose here.[23]

[182]

[21] Von Koenigswald, *op. cit.*

[22] It could not be said, however, that because the Cayuá no longer use canoes, nor have used them for some years, at least, the technique of *making* canoes is dying out among them. The large wooden tanks or vessels, which they carve from solid tree trunks in order to make the "tanks" necessary in the preparation of communal *chichas*, are made in essentially the same way as the dugout canoe of the region. They are up to twenty feet or more long. Baldus (Dr. Herbert Baldus, Professor of Ethnology, Escola Livre de Sociologia e Politica de São Paulo) called the attention of the writer to the fact that von den Steinen describes the use by the Yuruna, a Tupi tribe of the Rio Xingú, of the canoe as a vessel for fermented drinks and the paddle as a stirring ladle. An analogy between the canoe and the wooden *chicha* vessel of the Cayuá is quite apparent as to the form and the technique of manufacture.

[415] •
[293]

[23] It may be significant, when considering the disappearance of canoeing in the case of the Cayuá, to record that migrating whites in Brazil characteristically chose river-course routes, especially in difficult country. Canoe Indians may for

[648]

C A 415 171 /408 cont./ following observations: "The dispersion and evolution of a type of pottery whose /407/ origin must be assigned to the peoples near the Isthmus of Panama can be due only to the Arawak, who spread it among the nations living beyond the Andes, in regions as southerly as the Chaco and the territory of Misiones (1).

1. Ambrosetti (2, p. 714) as a matter of fact represents Kainguá vessels with a circular foot. I doubt very much that these pots reproduce a primitive type. They are badly fired, badly modeled, asymmetric, and the foot, which is fastened to the vessel when the latter is finished, is easily detached from it.

These vessels are perhaps crude imitations of European pottery.

A 171 In South America the Arawak have been the propagators of Central-American culture among the primitive tribes located east of the Andes."

C A 415 171 C [126] 10. The distribution of vessels with a ribbed belly, of which I acquired a marvelous specimen in the Caipipendí valley (Plate XXVI, 2), is almost the same as that of the "compotes," and we can, as with the latter, rank them with the pottery which shows a Central-American origin /Fig. 72 appears here/ and whose dispersion was the work of the Arawak (Jijon y Caamaño, p. 5, Fig. 1 D).

C 415 171 C [172] 11. The vessel of Plate XXVII, 2 is composed of two superimposed domes: one in the shape of a truncated cone, the other rounded. It comes from Ivu and is the only specimen of this form that I encountered in the course of my trip. An identical vessel was dug up on the upper Paraná by Ambrosetti (3, plate between pp. 256-257, Fig. 5). Similar receptacles are still in use by the Yuruná /Yuruna/ Indians of the lower Xingú (Steinen, 1, plate between pp. 266-267). The presence of vessels of this type among the ancient Guarani authorizes us to suppose that our specimen from Ivu represents /408/ the survival of an ancient form of Guarani pottery which the Chiriguano have not abandoned.

1 [See p. 179--Analyst]
2 [See p. 183--Analyst]

1: Métraux--196 E-5 (1929) 1930 SF10 Chiriguano SF10
Chané SF8
Arawakan Indians SR6
Guarani SM4
Peruvian Prehistory SE4

C 415 171 pp 415

/412 cont./

18. To put an end to these comparisons, I shall call attention to two vessels (Fig. 78 a and b), one acquired in Ivu in the Chaco and the other in Tacna, and dating from the Inca period (Uhle, 4, Plate XXVIII, 2). A simple glance at the two figures permits the establishment of their perfect identity.

C Ce 415 171

In short, from these comparisons and the ones we made on the subject of pottery in common use, we can draw the following conclusions: Chiriguano and Chané pottery is, from the morphological point of view, closely related to that of the ancient populations of southern Bolivia and northern Argentina and therefore offers numerous points of contact with the Chincha-Atacama civilizations. It still keeps traces of strong Inca influences (footed vessel (baker-shaped /in English/), aryballoid jars, ornithomorphic and anthropomorphic vessels, bowls, etc.). The ancient Arawak ethnic substratum is manifested in this sphere by the survival of several special types of pottery (vessels in the form of beakers or bowls (compoteras), vessels with a ribbed belly, vessels with three connecting bodies, etc.).

C Ce [179]

A [415]

C Ce & 415

The pottery in everyday use is clearly of Guarani inspiration and in its general features has remained identical to those of the ancient Guarani of Bolivia.

C 531 184

Comparative Study of the Principal Decorative Motifs of Chiriguano Pottery and That of the Neighboring Andean Peoples

The triangle with volute. In the region of the upper Pilcomayo the fundamental motif of pottery decoration is the triangle whose apex is prolonged in a volute or spiral (Plates XXXII-XXXIII, 2/A 136-199). This decorative element is repeated to repletion on all the vessels I collected from the village of Saladito to the valley of Igüembé. Elsewhere it becomes less frequent and takes on a more rudimentary form, which can be considered as further developed or degenerated.

2/A [See PP 200-201 -- Analyst]